

## TECHNOLOGY SPECIALIST III

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.*

### **DEFINITION**

This is an advanced journey level classification tasked with the design, maintenance, and support of the City's server and network infrastructure. Supports Information Technology Director and staff with City-wide information systems.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives supervision from the Information Technology Director. May exercise functional and technical supervision over lower level technical staff, as related to server and network activities and projects.

**ESSENTIAL FUNCTIONS STATEMENTS**—*Essential responsibilities and duties may include, but are not limited to the following:*

1. Perform a variety of highly complex analytical duties in the planning, development, installation, implementation, integration, testing and evaluation of the City's computer server, network systems, and telecommunication hardware and software.
2. Perform builds, administration, performance tuning for servers and storage area networks in a VMWare and Windows environment.
3. Ensure the availability of networking services; coordinate with City customers to determine network system requirements; study the integrity and security of data to establish system configuration; monitor systems to control and support network traffic; devise and implement strategies for connection of independent networks through the use of routers, bridges and gateways
4. Investigate, analyze and resolve network-related problems; resolve compatibility problems across City networks; troubleshoot network failures, router problems and telecommunications problems; recommend and implement changes and improvements.
5. Measure volume and performance of network traffic; identify utilization and performance issues; design strategies and recommendations to improve network performance.
6. Develop computer internetworking and telecommunication systems engineering and design criteria, troubleshooting and analysis procedures and quality assurance processes for citywide systems.
7. Participate in evaluation of network protocols, hardware and software to determine their applicability to City network needs; assist in the selection process; coordinate the installation and maintenance of computers, circuits and data communications equipment; configure routers, controllers and other devices.
8. As assigned, serve as project lead on computer network and telecommunication projects; analyze user information system needs; recommend solutions and appropriate technology to meet client needs; participate in evaluations of proposed network hardware to ensure compatibility with existing systems; install and evaluate software and hardware; design project and resource plans and schedules; direct members of the project team; provide written reports and presentations on project status.
9. Perform technical writing duties in the development and production of network system documentation, instructional and procedural manuals.

## **PERIPHERAL FUNCTIONS**

- Assists in the research and writing of staff reports and procedural documents.
- Collaborates with other Information Technology Department staff to provide help-desk support, application support and participation in developing strategic goals for the City's Information Technology Plan, as required.
- Other special assignments as provided by the Information Technology Director
- Troubleshooting and training techniques for basic computer problems.

## **QUALIFICATIONS**

### **Knowledge of:**

- Operations, services and activities of computer network programs and telecommunication systems.
- Principles and practices of computer science.
- Operational characteristics of local and wide area network systems.
- Operational characteristics of data networking equipment including routers, bridges, switches, fiber optic multiplexors, network management systems and related equipment.
- Methods, techniques and operational characteristics of network and telecommunication systems diagnostic and testing equipment.
- Operational characteristics and capabilities of a variety of computer systems, applications, hardware, software and peripheral equipment.
- Principles, practices, methods and techniques used in local and wide area network design, implementation and administration.
- Network security
- Principles and practices of project planning and scheduling.
- A variety of network operating systems.
- Data communication standards, protocols, hardware, software and network management practices.
- Methods and techniques of evaluating network performance.
- Principles and practices of local and wide area network security and administration.
- Methods and techniques of developing technical manuals and instructional materials.
- Pertinent Federal, State and Local codes, laws, and regulations

### **Ability to:**

- Provide highly technical support to City network and telecommunication systems.
- Provide support to complex local and wide area network and telecommunication system design, development and implementation projects.
- Analyze user network systems requirements and provide solutions.
- Apply technical concepts to develop business solutions.
- Research, analyze and evaluate new service systems.
- Design, develop, implement and administer local and wide area network systems.
- Design, configure and test network hardware and software.
- Install, test and configure hardware and software applications and programs.
- Respond to requests and inquiries from system users.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Maintain mental capacity that allows for effective interaction and communication with others.

- Maintain physical condition appropriate to the performance of assigned duties and responsibilities.
- Maintain effective audio-visual discrimination and perception needed for making observations, communicating with others, reading, writing and operating assigned equipment.

### **Education and Experience Guidelines:**

*Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

#### **Education:**

Equivalent to a Bachelor's degree from an accredited college or university with major coursework in computer science, network engineering or a related field. Additional qualifying experience or training may be substituted for formal education.

#### **Experience:**

Three years of increasingly responsible experience in the design and installation of servers, local and wide area network and telecommunication systems.

#### **Licensing and certification:**

Possession of or ability to obtain an appropriate, valid California Driver's License. Submittal and approval of fingerprint cards for DOJ check.

### **WORKING CONDITIONS:**

Environmental conditions: Office environment; exposure to computer screens.

### **ADA SPECIAL REQUIREMENTS:**

The following physical abilities and work environment: Ability to sit, stand, walk, kneel, crouch, squat, reach, twist, climb, lift 40 lbs., exposure to confining work space, electrical hazards, ability to travel to different sites and locations, unassisted.